

NATURAL RESOURCES CONSERVATION SERVICE CONSERVATION PRACTICE SPECIFICATION

FIREBREAK

(Feet)
CODE 394

GENERAL SPECIFICATION

Procedures, technical details and other information listed below provide additional guidance for carrying out selected components. This material supplements the requirements and considerations listed in the conservation practice standard.

Planning Considerations

New Mexico Energy, Minerals and Natural Resources Department provide technical assistance on forest and woodlands through the local service foresters. A landowner harvesting over 25 acres per year must obtain a state permit from the service forester and have a regeneration plan. The local service forester can produce the regeneration plan or a consultant can do the work. The local service forester maintains a list of state certified consultant foresters. Firebreaks are an integral component of a forest and woodland management plan. Always check with the local service forester when making site-specific specifications on forestland.

The basic function of a fire or fuel-break is to impose some obstacle to the spread of fire. Often it provides both a barrier to the spread and a means of access to the fire.

Firebreaks are constructed for a number of purposes:

- a. To act as a barrier to prevent the spread of a fire to a particular area or property.
- b. To contain the spread of a fire from a fire source.
- c. To break up large fuel areas where a fire can spread rapidly or could be difficult to control, a system of firebreaks is sometimes established to aid in confining the fire to a relatively small area.

Existing barriers must be considered. These include natural barriers such as rock outcrop, streams, water bodies, swamps, and cover with naturally low

flammability, as well as artificial barriers such as roads and railroads, power, gas, oil, and telephone rights of way.

While applicable to most land uses, firebreak planning should be combined with other land management planning to comprise a complete management system.

The installation of firebreaks is based on the value of the resource that is susceptible to fire. The costs of installation must be weighed against the benefits received through potential reduced fire damage. It may not be economically feasible to develop a system of firebreaks for low site index stands (less than site index 50) for species such as ponderosa pine, Douglas-fir, white fir, etc. Areas with high economic, social, wildlife or watershed values should be protected. These include the higher site index stands, home sites, plantations, significant cultural resources, areas which contain rare and endangered plants and animals, municipal water supply sources and Christmas tree farms.

Firebreaks and Fuelbreaks

Firebreaks can be thought of as two different methods to achieve the same purpose. A firebreak requires clearing fuels down to mineral soil. A fuelbreak requires fuels management to a minimum level.

Firebreak

A firebreak consists of two parts;

- 1) a lane or strip cleared of most trees, shrubs, and other large flammable material; and
- 2) 2) A narrower strip cleared down to mineral soil. They are best suited for use in range, crop, and urban lands.

Firebreaks are usually located with reference to probable sources of fires. These may be along roads or fences.

Conservation practice standards are reviewed periodically, and updated if needed. To obtain the current version of this standard, contact the Natural Resource Conservation Service.

They are also located based on the usual direction a fire may spread.

Because mineral soil is required, erosion from firebreaks can become a serious problem. Erosion control measures are necessary when slopes exceed five percent.

Natural and land use firebreaks must be a minimum of 10 feet wide and devoid of flammable material.

Constructed firebreaks will consist of two parts. A lane or strip 10 to 16-feet-wide will be cleared of trees, shrubs, and other flammable material that exceeds 1-1 1/2 feet in height. Within this wider barrier, a narrower strip of 6 to 8 feet will be cleared down to mineral soil by the use of fire, chemical or mechanical equipment.

Fuelbreak

A fuelbreak is a wide strip with a smaller amount of fuel in a brush or wooded area that serves as a line of fire defense and breaks the area into smaller units. They normally have a grass understory to provide soil cover.

Normally, they are constructed in the following sequence. The first fuelbreaks are on ridges separating major drainages. The next series are on ridges within the major subdrainages.

In general, the wider the fuelbreak, the easier and safer the job of holding the fire. However, budget and terrain constraints limit the width of most fuelbreaks.

All shrub species from 1-1/2 feet to 4-1/2 feet high will be removed.

Tree spacing: Increase the recommended D + X spacing for the species by one-third of the recommended distance in the Forest Stand Improvement Specification (Specification 666).

The minimum width shall be 66 feet.

All trees exceeding 20 feet in height will have the lower limbs pruned to a minimum height of 8 feet according to the Tree/Shrub Pruning Specification (Specification 660).

All slash will be disposed of either by hauling away from or burning on the site.

Location

Firebreaks will be located on ridges, utility rights-of-way or along roads and fences.

When a series of firebreaks is planned they will not be further than 3 miles apart.

CONSIDERATIONS

Use existing barriers such as streams, lakes, ponds, rock cliffs, roads, skid trails, landings, drainage canals, railroads, utility right-of-ways, cultivated land, or other areas as natural firebreaks.

Locate firebreaks on the contour where possible to minimize risk of soil erosion.

Attempt to locate firebreaks near ridge crests and valley bottoms. If the winds are predictable, firebreaks should be located perpendicular to the wind and on the windward side of the area to be protected.

Select plant species that provide wildlife habitat if compatible with purpose and criteria.

Design and layout should include multiple compatible uses.

PLANS AND SPECIFICATIONS

Specifications for applying this practice shall be prepared for each site and recorded using approved specification sheets, job sheets, technical notes, and narrative statements in the conservation plan or other acceptable documentation.

OPERATION AND MAINTENANCE

Mow or graze vegetative firebreaks to avoid a build-up of dead litter and to control weeds.

Inspect for and remove woody materials such as dead limbs and blown down trees from firebreak.

Inspect annually and rework bare ground firebreaks as necessary to keep them clear of flammable vegetation.

Inspect annually and repair erosion control measures as necessary to ensure proper function.

Access by vehicles or people will be controlled to prevent damage to the firebreak.

Bare ground firebreaks that are no longer required will be stabilized.

Flammable vegetation exceeding 1 1/2 feet in height will either be removed or mowed.

For firebreaks the 6 to 8 foot strip of exposed mineral soil will be inspected at least semiannually. All flammable material (including leaves and needles) will be removed.

Where slopes exceed 5 percent, erosion control structures will be installed.